Technologist Involvement in Pre-Clinical Studies

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Pre-clinical imaging of small animals is a growing field which is appearing as an essential step filling the gap between preclinical and clinical research domains (1). At the University Hospital of Strasbourg, a pre-clinical imaging unit has been identified since 2011. This unit is located in the middle of the clinical imaging department. Its philosophy is to apply translational imaging research with the same modalities that can be found in a clinical imaging department especially: planar scintigraphy, SPECT, CT and MRI.

Not only modalities should be the same but we aimed at working the same way as a clinical imaging facility. And the best way to achieve this goal is to recruit a technologist. The place of technologists in such a pre-clinical laboratory seems evident for us in order to benefit from their clinical experience, practical skills as well as general and deep knowledge in medical imaging.

All the tasks performed are in accordance with the french regulation of technologist (decree 97-1057 – Nov. 19, 1997) (2): – Preparation of the patient before any imaging act (ex: animal care and registration). – Radiation safety procedures implementation (ex: radionuclide dosimetry management, laboratory contamination controls, management of radioactive waste products) – Quality controls – Administration of radioactive tracers and contrast agents – Imaging devices operation (animal positioning, setting acquisition parameters, datas and images management) (3) – Research and training (ex: close relationship with researchers, physicians and engineers; technologist trainees).

Our experience shows that the integration of a technologist in a preclinical imaging department is an added value to scientific projects. Technologist collaboration with a research team improves and facilitates sequence of procedures and consequently increases the throughput. We believe that preclinical imaging is a new field of competences for technologists in the future (4).

References:

2. Décret no 97-1057 du 19 novembre 1997 relatif aux actes professionnels et à l’exercice de la profession de manipulateur d’électroradiologie médicale. JORF n°270 du 21 novembre 1997 page 16852